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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,985	02/27/2004	Michael Wimmer	FA1193USNA	6843

23906 7590 10/17/2006

E I DU PONT DE NEMOURS AND COMPANY
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WILMINGTON, DE 19805

EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,985

Applicant(s)

WIMMER ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear how many coated steel sheets are required. In particular, it is unclear if "a coated electrical steel sheets" requires at least one coated steel sheet or plural coated steel sheets. Should "a coated electrical steel sheets" be --a coated electrical steel sheet--?

In claim 2, it is unclear if additional water is required. In other words, it is unclear if the water described in claim 2 is in addition to the 50 to 200 parts by weight water in step (a) of claim 1. In claim 2, it is suggested to change "then adding components B) - E)" to --then adding components B) - D) --.

- 3) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 4) Claims 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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In claim 2, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "the composition is produced by production of an epoxy dispersion by mixing the epoxy resin with water and then adding components B) - E)".

The original disclosure describes an aqueous composition comprising A) 100 parts by weight of one or more epoxy resins based on bisphenol-A-type, 100% of solids, B) 1 to 25 parts per weight of dicyandiamide, C) 0.1 to 10 parts per weight of additives, D) 0.1 to 120 parts per weight of flow agent and E) 50 to 200 parts per weight of water" and "... it is possible to produce an epoxy dispersion by mixing epoxy resin with water. The dicyandiamide and the further components are then added, for example with stirring, to produce a stable dispersion, optionally with input of heat and dispersing agents".

However, the original disclosure fails to reasonably convey adding 50 to 200 parts water to a mixture of epoxy and water.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6) **Claims 1-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 723 (JP 11-162723) in view of Japan 574 (JP 2000-34574) and optionally Young (US 5,500,462).**

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Japan 723, Japan 574 and Young are applied as in paragraph 4 of the last office action dated 3-28-06 (paragraph 4 of the last office action dated 3-28-06 is incorporated herein by reference).

With respect to the amendment of step (c), Japan 723 teaches baking (drying) the coated sheet at 100-300 degrees C such that the curing of the coating does not progress too far and then assembling the coated sheets and applying heat and pressure to cure the coating and bond the sheets together. See paragraphs 1, 17 and 34-28 of machine translation provided by the examiner in the last office action.

Applicant comments: "Applicants' claimed invention, however, covers the use of dicyandiamide without any phenol resin as further curing agent" (page 5 of response filed 7-24-06, emphasis in original). Examiner comments that applicant fails to argue "Applicants' claimed invention, however, **requires** the use of dicyandiamide without any phenol resin as further curing agent".

Applicant comments: "Applicant's claimed invention does not need the additional phenol resin as curing agent, and consequently a polycondensation reaction, to provide the desired properties" (page 5 of response filed 7-24-06). Examiner comments that applicant fails to argue "Applicant's claimed invention **excludes** the additional phenol resin as curing agent, and consequently a polycondensation reaction".

Applicant argues that applicant's claimed invention is based on a polyaddition reaction between the epoxy resin and dicyandiamide whereas Japan 723 is based on a polycondensation reaction between the epoxy resin and the phenol resin and a polyaddition reaction. This argument is not commensurate in scope with the claims and

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is therefore not persuasive of nonobviousness because claim 1 fails to require a polyaddition reaction between the epoxy resin and dicyandiamide.

Applicant argues that flow agent D) increases the film formation during the curing process at a higher temperature, is not an agent to increase dispersing properties and does not influence membrane properties. This argument is not commensurate in scope with the claims and is therefore not persuasive of nonobviousness because claim 1 requires "0.1 to 120 parts by weight of flow agent" instead of -- a flow agent which increases the film formation during the curing process at a higher temperature, is not an agent to increase dispersing properties and does not influence membrane properties--.

With respect to flow agent D), applicant argues that Japan 723 does not disclose the meaning of the terms "membrane formation assistant" or dispersibility improver".

This argument is not persuasive. One of ordinary skill in the art would readily understand that "membrane formation assistant" in paragraph 32 of the machine translation of Japan 723 as meaning an agent / additive which facilitates formation of the coating on the sheet. Also, one of ordinary skill in the art would readily understand "dispersibility improver" in paragraph 32 of the machine translation of Japan 723 as meaning an agent / additive which improves dispersion in the aqueous coating composition.

With respect to flow agent D), applicant acknowledges that Japan 574 teaches the use of polyethylene glycol nonion surfactant, but argues that nonion surfactant is not a flow agent. This argument is not persuasive. First: Applicant's argument is inconsistent with the claimed invention since (1) polyethylene glycol is a type of

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polyglycol and (2) dependent claim 7 requires "polyglycol is used as a flow agent".

Second: The polyethylene glycol nonionic surfactant reduces surface tension and thereby affects the flowability of the aqueous coating composition; applicant having provided no convincing argument and/or evidence to the contrary.

Applicant argues that flow agent D) in claim 1 is not suggested by the Japan 723 and Japan 574 combination. Examiner disagrees. Japan 723 and Japan 574 are in the same field of endeavor of manufacturing coated steel sheets for a core of a motor or transformer. Japan 723 and Japan 574 both disclose forming the coating using an aqueous composition comprising epoxy resin. Japan 723 recognizes that various materials such as "membrane formation assistant" and "dispersibility improver" may be included in the aqueous coating composition for the steel sheet. Japan 574 motivates one of ordinary skill in the art to use polyethylene glycol nonionic surfactant in Japan 723's aqueous coating composition for a steel sheet to acquire excellent coating stability and corrosion resistance. Polyethylene glycol nonionic surfactant reduces surface tension and thereby affects the flowability of the aqueous composition. Moreover, polyglycol as in dependent claim 7 reads on polyethylene glycol nonionic surfactant as disclosed by Japan 574.

7) Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 723 in view of Japan 574 and optionally Young as applied above and further in view of Stark (US 4,307,212) or Kohn et al (US 2,962,410).

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Stark and Kohn et al are applied as in paragraph 5 of the last office action dated 3-28-06 (paragraph 5 of the last office action dated 3-28-06 is incorporated herein by reference).

Remarks

- 8) Applicant's arguments filed 7-24-06 have been fully considered but they are not persuasive.
- 9) No claim is allowed.
- 10) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

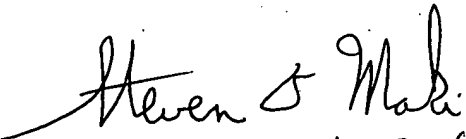
- 11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
October 13 2006


STEVEN D. MAKI 10-13-06
PRIMARY EXAMINER